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10/673,200	09/30/2003	Ming-Jiun Liaw	LIAW3003/EM	9607

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EXAMINER	
SHAPIRO, LEONID	

ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
05/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/673,200	LIAW, MING-JIUN	
	Examiner	Art Unit	
	Leonid Shapiro	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2,4-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Objections

1. Claim 4 is objected to because of the following informalities: Claim 4 is dependent on cancelled claim 3. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-2,4-11,14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiyama et al. (US 7,084,850 B2) in view of Allen et al. (5,430,480).

As to claim 1, Hiyama et al. teaches an image detection apparatus for determining an effective number of gray levels of a display while showing motion images (col. 1, lines 6-10), comprising:

an image generation means for generating a still image and a moving image, the moving image being a duplication of the still image with adjustable motion vectors, and for providing an interested display to show the still image and the moving image at the same time (fig. 11, items 62A-62B, col. 10, lines 37-62);

wherein the still image can present the gray level capability of the display while showing still images (col. 7, lines 57-61);

an examination means for using the moving image to determine the effective number of gray levels of the display while showing motion images from the above-mentioned moving images (Col. 7, Lines 23-31).

Hiyama et al. does not disclose the motion image is the duplication of the still image but with adjustable moving speed and direction.

Allen et al. teaches the motion image is the duplication of the still image but with adjustable moving speed and direction (col. 1, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Allen et al. into Hiyama et al. system in order to compensate for global motion in a video scene (col. 1, lines 12-16 in the Allen et al. reference).

As to claims 2,8 Hiyama et al. teaches gray levels of the still image are adjustable (col. 7, lines 57-61).

As to claim 9 Hiyama et al. teaches the motion image is the duplication of the said still image but with adjustable moving speed and direction. (fig. 8, item 522, col.9, lines 35-57).

As to claims 4,10,14-15 Hiyama et al. teaches the moving speed and direction of the moving image can be either automatically adjusted or by manually operated (in reference the image control unit) (fig. 1, items 10,60, Col. 6, lines 55-61).

As to claims 5,7 Hiyama et al. teaches the examined means are real human eyes (col. 3, lines 10-38 and col. 7, lines 31-40).

As to claim 6, Hiyama et al. teaches an effective number of gray levels detection apparatus is to determine the effective number of gray levels of a display while showing motion images (col. 1, lines 6-10), which detection apparatus comprising:

a visual simulator for simulating visual detection and recognition (fig.1, items 10-11, col. 6, lines 62-67);

an image generation means for generating a still but with adjustable motion vectors, and then for providing an interested display to show the above-mentioned two images at the same time (fig. 11, items 62A-62B, col. 10, lines 37-62);

wherein the still image can present the gray level capability of the display while showing still images (col. 7, lines 57-61);

an examination means for determine the effective number of gray levels of the display while showing motion images from the above-mentioned motion image (Col. 7, Lines 23-31).

Hiyama et al. does not disclose the motion image is the duplication of the still image but with adjustable moving speed and direction.

Allen et al. teaches the motion image is the duplication of the still image but with adjustable moving speed (col. 1, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Allen et al. into Hiyama et al. system in order to

compensate for global motion in a video scene (col. 1, lines 12-16 in the Allen et al. reference).

As to claim 11, Hiyama et al. teaches an effective number of gray levels detection method is to determine the effective number of gray levels of a display while showing motion images (col. 1, lines 6-10), which detection apparatus comprising:

generating a still image and motion image hereinafter, by an image generating means first and then showing images on the screen (fig. 11, items 62A-62B, col. 10, lines 37-62);

adjusting the moving speed and directions of the moving image (fig. 8, item 522, col.9, lines 35-57);

determining the discrimination of adjacent gray levels of the moving image(Col. 7, Lines 23-31).

Hiyama et al. does not disclose the motion image is the duplication of the still image but with adjustable moving speed and direction.

Allen et al. teaches the motion image is the duplication of the still image but with adjustable moving speed and direction (col. 1, lines 39-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Allen et al. into Hiyama et al. system in order to compensate for global motion in a video scene (col. 1, lines 12-16 in the Allen et al. reference).

3. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiyama et al. and Allen et al. in view of Kawahara et al. (US 2001/0028347 A1).

Hiyama et al. and Allen et al. do not disclose the number of gray levels of a display while showing moving images is not lost if edge of adjacent gray levels of the moving image can be discriminated.

Kawahara et al. teaches the number of gray levels of a display while showing moving images is not lost if edge of adjacent gray levels of the moving image can be discriminated (figs. 36-37, paragraphs 0009-0010).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate teachings of Kawahara et al. into Hiyama et al. and Allen et al. system in order to reduce occurrences of moving image false edges (paragraph 0015 in the Kawahara et al. reference).

Response to Arguments

4. Applicant's arguments with respect to claims 1-2,4-15 have been considered but are moot in view of the new ground(s) of rejection.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

05.20.08
/L. S./
Examiner, Art Unit 2629

/Richard Hjerpe/

Supervisory Patent Examiner, Art Unit 2629